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| **Unit: UBD Measurement**  **Grade: 7th Grade Technology** | |
| Stage 1: Desired Results | |
| **Established Goals** | |
| **South Dakota Middle School Technology Education Course Content Standards Covered**  TEMS.4.57 Select and use construction technologies.  **SOUTH DAKOTA MATHEMATICS STANDARDS 6-8**  7.M.1.1. Students are able to select, use, and convert appropriate units of measurement for a situation including capacity and angle measurement.  **Technology Education Standard #17**  Students will develop an understanding of and be able to select and use information and communication technologies. | |
| **Understandings**  Students will understand:   * Students will be able to use a ruler to measure units and understand fractions of an inch, inches, feet, and yards. * Reading a ruler is a valuable skill that a person will likely use in their job, in there hobbies, and in every day life. Without measuring devices like rulers, and people that can read them, we would still be living in caves. | |
| **Essential Questions**   * Why is it important to be able to read a standard inch ruler? * What is an inch? * What is a fraction? * How many inches in one foot? * How many feet in one yard? * How can fractions be reduced? * How many sixteenths, eighths, and fourths in one inch? | |
| **Knowledge**  *Students will know…*   * That an inch is divided up into parts called fractions. * That there are 12 inches in a foot. * That there are 3 feet in a yard. * Fractions need to be reduced to their lowest term. | **Skills**  *Students will be able to…*   * Name the fractional parts of an inch. * Reduce fractions to their lowest term. * Use a ruler to measure different objects to the closest sixteenth of an inch. |

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| **Stage 2: Assessment Evidence** | |
| **Performance Task(s):**   * Students will watch the Reading the Ruler video and make a paper ruler. * Students will use the “Reading A Ruler” software to learn about the fractional inch ruler. * Students will measure and record line lengths to the closest sixteenth of an inch. * Students will work collaboratively to complete the module. * Students will follow directions. | **Other evidence:**   * Students will complete three measurement worksheets. * Students will complete two measuring quizzes with no lower than a 90% score. * Students will reduce all fractions to their lowest term. * Students will score 2000 points using the Ruler Game on the Internet. |

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| **Stage 3: Learning Activities** |
| Lesson Planner day Measurement Module  **Day 1**  Student(s) will watch the Reading the Ruler video that covers the basic fundamentals of the standard inch ruler.  Student(s) will make a paper ruler while watching the Reading the Ruler video  **Day 2**  Student(s) will use the multimedia reading the ruler program to learn about fractions of an inch, inches, feet and yards.  Student(s) will take a 10 question quiz on finding points on a ruler.  **Day 3**  Student(s) will take a 10 question quiz on finding points on a ruler.  Student(s) will start a 40 point worksheet that covers measuring line segments and reducing fractions to lowest term.  **Day 4**  Student(s) will complete 40 points worksheet.  Student(s) will start the Ruler Game on the internet. Ruler game will be completed when student reaches 2000 total points.  **Day 5**  Student(s) will complete the Ruler Game. |